

Docket: APS03-003
S/N: 10/742,306

In the Drawings

Submitted herewith is substitute drawing sheet 3/7 with a change to Fig. 6, i.e. "10" has been changed to -- 210 --. The Examiner is requested to approve this change.

Remarks

Examiner Im is thanked for the thorough Office Action.

Election/Restriction

Applicant acknowledges the withdrawal of the restriction requirement.

In the Drawings

Applicants acknowledge the objection to the drawings because a portion labeled 10 in Fig. 5 (sic) should be "210."

The Examiner is requested to approve the change to Fig. 6 in the substitute drawing sheet 3/7 submitted herewith. Specifically, "10" has been changed to -- 210 -- in Fig. 6. Applicants note that the Examiner referenced Fig. 5 in the Office Action but Applicants have determined that this change pertains to Fig. 6.

In the Claims

Independent claims 1, 13 and 25 have been amended by adding

-- single -- before "substrate" at each instance.

Claim Rejections

The Rejection Of Claims 1 To 10, 12 To 21, 23 To 33 And 35 Under 35 U.S.C. §103(a) as Being Unpatentable Over Takahashi et al. (U.S. Patent No. 6,765,299) In View Of Yanagida (U.S. Patent No. 6,204,558)

The rejection of claims 1 to 10, 12 to 21, 23 to 33 and 35 under 35 U.S.C. §103(a) as being unpatentable over Takahashi et al. (U.S. Patent No. 6,765,299) (the '299 Takahashi Patent) in view of Yanagida (U.S. Patent No. 6,204,558) (the '558 Yanagida Patent) is acknowledged.

The Rejection Of Claims 11, 22 And 34 Under 35 U.S.C. §103(a) as Being Unpatentable Over Takahashi et al. (U.S. Patent No. 6,765,299) And Yanagida (U.S. Patent No. 6,204,558) As Applied To Claims 1, 13 And 25 Above, And Further In View Of Degani et al. (U.S. Patent No. 6,734,539)

The rejection of claims 11, 22 and 34 under 35 U.S.C. §103(a) as being unpatentable over Takahashi et al. (U.S. Patent No. 6,765,299) (the '299 Takahashi Patent) and Yanagida (U.S. Patent No. 6,204,558) (the '558 Yanagida Patent) as applied

to claims 1, 13 and 25 above, and further in view of Degani et al. (U.S. Patent No. 6,734,539) (the '539 Degani Patent) is acknowledged.

Applicants' wish to briefly point up the claimed features of their invention which are believed to be not shown nor obvious from the teachings of known references in this field. The claims all clearly define (using independent claim 1 as an example):

A die comprising:

- a) a **single** substrate;
- b) two or more various shaped bump structures formed over the **single** substrate; each bump structure having a solder line; and
- c) an epoxy layer formed over the **single** substrate wherein:
 - i) the solder lines are below the epoxy layer top surface;
 - ii) the solder lines are above the epoxy layer top surface; or
 - iii) some of the solder lines are below and some of the solder lines are above the epoxy layer top surface. (**emphasis added**)

The Examiner cites the '299 Takahashi Patent as, inter alia, having "two or more various shaped bump structures [106, 107, 116, 117] formed over the substrate;" and cites the "first semiconductor chip 110" as the supporting substrate. Takahashi discloses a "...second semiconductor chip 111 [second substrate] [is] fixed

over the first semiconductor chip 101 [first substrate]...", i.e. Takahashi has two separate and distinct substrates and not "...a **single** substrate..." (emphasis added) as now claimed in the instant invention and it would not be obvious to modify Takahashi by the '558 Yanagida Patent under §103(a).

The Examiners citation of Yanagida does not cure this defect and nor does the additional citation of the '539 Degani Patent against claims 11, 22 and 34 under §103(a).

Thus, independent claims 1, 13 and 25 distinguish over Takahashi in view of Yanagida under §103(a) for the above reason and further because, inter alia: the prior art lack a suggestion that Takahashi should be modified in a manner required to meet the claims; and the Examiner has not presented a convincing line of reasoning as to why the claimed subject matter as a whole, including its differences over the prior art, would have been obvious. A fortiori, claims 11, 22 and 34 distinguish over Takahashi in view of Yanagida as applied to claims 1, 13 and 25 and further in view of Degani under §103(a).

Claims 2 to 10 and 12 depend from independent claim 1; claims 14 to 21, 23 and 24 depend from independent claim 13; and claims 26 to 33 and 35 depend from independent claim 25 and are believed to distinguish over the combination for the reasons previously cited.

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Therefore claims 1 to 35 are submitted to be allowable over the cited references and reconsideration and allowance are respectfully solicited.

CONCLUSION

In conclusion, reconsideration and withdrawal of the rejections are respectively requested. Allowance of all claims is requested. Issuance of the application is requested.

It is requested that the Examiner telephone Stephen G. Stanton, Esq. (#35,690) at (610) 296 - 5194 or the undersigned attorney/George Saile, Esq. (#19,572) at (845) 452 - 5863 if the Examiner has any questions or issues that may be resolved to expedite prosecution and place this Application in condition for Allowance.

Respectively submitted,

A handwritten signature in black ink, appearing to be 'SBA', is written over a horizontal line.

Stephen B. Ackerman
Reg. No. 37,761